

What is claimed is:

1. A method of controlling the display of an articulated graphical image in a graphical environment, the method comprising:

5 sensing manipulation of a user object;
 controlling the displayed position or shape of the articulated graphical image in relation to the sensed manipulation; and
 when the articulated graphical image interacts with a graphical object, changing the relationship between the displayed position or shape of the articulated graphical image and the sensed manipulation.

15 2. A method according to claim 1 wherein when the articulated graphical image interacts with a graphical object, the displayed position or shape of the articulated graphical image is calculated by an algorithm.

 3. A method according to claim 2 wherein the algorithm uses constraints to calculate the displayed position or shape of the graphical image.

20 4. A method according to claim 2 wherein the algorithm uses numerical methods to calculate the displayed position or shape of the graphical image.

 5. A method according to claim 2 wherein the algorithm comprises a quadratically converging and linearly scalable constraint solver.

25 6. A method according to claim 1 wherein the user object is articulatable.

 7. A method according to claim 1 wherein the user object is capable of providing a haptic sensation to the user.

30 8. A method according to claim 7 wherein the haptic sensation is related to the interaction of the graphical image and the graphical object.

9. A method of controlling the display of a graphical image in a graphical environment, the method comprising:

sensing manipulation of a user object;

controlling the displayed position or shape of the graphical image in
5 relation to the sensed manipulation; and

when the articulated graphical image interacts with a graphical object,
changing the relationship between the displayed position or shape of the graphical image and
the sensed manipulation by calculating a position or shape of the graphical image using an
algorithm using numerical methods.

10 10. A method according to claim 9 wherein the algorithm comprises a
quadratically converging and linearly scalable constraint solver.

11. A method according to claim 9 wherein the user object is capable of
15 providing a haptic sensation to the user.

12. A method according to claim 11 wherein the haptic sensation is related to
the interaction of the graphical image and the graphical object.